REMARKS

Claims 1, 4-5, 7-10, and 12-14 were pending at the time of examination. Claims 1, 4 and 5 have been amended. Applicant is <u>not</u> conceding that the subject matter encompassed by claims 1, 4 and 5 prior to this amendment is not patentable over the art cited by the Examiner. Claims 1, 4 and 5 were amended in this amendment solely to facilitate expeditious prosecution of the remaining claims. Applicant respectfully reserves the right to pursue additional claims, including the subject matter encompassed by claims 1, 4 and 5 as presented prior to this amendment, in one or more continuing applications. Applicant respectfully requests reconsideration based on the foregoing amendments and these remarks.

Interview Request

Over the past three months (since the most recent Office Action was mailed) Applicant has sent in two interview requests and called the Examiner in hope of being able to schedule an interview and move the current case forward in view of the long prosecution history. The Examiner has, however, not returned any calls to the undersigned. Thus, the Applicant would like to take this opportunity to request an interview, and would greatly appreciate if the Examiner would be so kind to accommodate this request, to further discuss the remarks made in this amendment.

Double Patenting Rejection

Claim 1 was rejected on the grounds of non-statutory obviousness-type double patenting as being unpatentable over claims 1, 5, 7 of U.S. Patent No. 6,003,029 to Agrawal et al. and claims 1 and 6 of U.S. Patent No. 6,829,561 to Keller et al. Applicant has filed a terminal disclaimer along with this response for each of these prior patents and respectfully submits that the Double Patenting Rejection is thereby moot and should be withdrawn.

Claim Rejections – 35 U.S.C. § 103

The rejection of claims 1, 4-5, 7-10, 12-14 under 35 U.S.C § 103(a) over U.S. Patent No. 6,012,058 to Fayyad et al. (hereinafter "Fayyad") in view of U.S. Patent No. 6,636,862 to Lundahl et al. (hereinafter "Lundahl") was maintained in this Office Action. Applicant again respectfully traverses this rejection.

The Examiner states in the "Response to Arguments" section on page 9 of the most recent Office Action that the Applicant does not recite in the rejected claims that "the deviations

are determined with respect to the characteristic value which is static for a given attribute and a given set of records." Applicant agrees that claim 1 prior to this amendment did not explicitly recite the "static" nature of the characteristic value, and that it was merely inferred from the notion of performing a "first pass" and a "second pass," respectively. For this reason, Applicant has amended claim 1 to make explicit the "static" nature of the characteristic value, as well as make explicit that the attributes for which the characteristic values are calculated are the corresponding attributes across the given set of records. Applicant is hopeful that these amendments render claim 1 sufficiently clear to distinctly point out the differences with respect to Fayyad.

The differences with respect to Fayyad in terms of the characteristic value (and in particular the K-means algorithm) have been extensively discussed in previous Office Action Responses, to which the Examiner's attention is kindly directed. In summary, the deviations in Applicant's invention is determined with respect to static values, as acknowledged by the Examiner, while in Fayyad (i.e., in the K-means algorithm), the distance is iteratively determined from a centroid, which can be considered a "moving target" as the position of the centroid changes in every iteration (see, for example, col 3, lines 14-18, which discusses the determination of an "updated mean"). As stated in the background section of Applicant's invention, one of the main purposes with Applicant's invention is to overcome the drawbacks with conventional K-means clustering, due to it being very computationally expensive.

Furthermore, Fayyad only applies the K-means clustering to a subset of records - the "retained set (RS)" of records. According to Fayyad, this set of records changes "on any given iteration of the invention" in the interest of saving "valuable resources." Thus in Fayyad, both the characteristic value and the set of records change in every given iteration. In contrast, in Applicant's invention a first pass is performed to determine static characteristic values and a second pass is performed to determine deviations from these static characteristic values. In both the first and second pass, the same set of records is used, and there are no iterations like the ones that Fayyad uses.

Finally, with respect to claim 1, Applicant maintains the arguments made in the most recent Office Action Response that Lundahl's techniques require a neural network to be operable, which is not necessary for the steps recited in claim 1. In fact, the Kohonen algorithm, which is used in Lundahl and referred to by the Examiner, is also exemplified in the background section of the present application as a computationally expensive algorithm whose deficiencies are overcome using the techniques recited in claim 1. The section of Lundahl cited to render the "searching" step of claim 1 obvious pertains to optimizing an index of a search sample by

substituting the index with a sample from raw data, when appropriate. No such substitution is made in the Applicant's invention. Lundahl does also not disclose any key to be used in this process, as required by claim 1.

In conclusion, even if one were to combine Fayyad and Lundahl, the combination would not remedy the deficiencies discussed above. Consequently, it is respectfully submitted that claim 1, as amended, is neither anticipated nor rendered obvious by the Fayyad and Lundahl combination. It is respectfully requested that the rejection of claim 1 under 35 U.S.C § 103(a) be withdrawn.

Claims 4-5, 7-10, and 12-14 all depend directly or indirectly from claim 1. Thus, it is respectfully submitted that claims 1, 4-5, 7-10, and 12-14 are not anticipated nor rendered obvious for at least the reasons presented above with respect to claim 1, and it is respectfully requested that the rejection of dependent claims 4-10 and 12-14 under 35 U.S.C § 103(a) be withdrawn.

Conclusion

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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